

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method of analyzing a subject sample for a plurality of subject-derived markers selected to distinguish amongst a plurality of cardiovascular disorders, comprising:

(a) assaying said sample for the presence or amount of ~~one or more subject-derived markers related to blood pressure regulation, and for the presence or amount of one or more subject-derived markers related to myocardial injury,~~ B-type natriuretic peptide or a marker related to B-type natriuretic peptide; D-dimer; creatine kinase-MB; myoglobin; and at least one cardiac troponin form, where a cardiac troponin form is free cardiac troponin I, free cardiac troponin T, cardiac troponin I in a complex comprising one or both of troponin T and troponin C, cardiac troponin T in a complex comprising one or both of troponin I and troponin C, free and complexed cardiac troponin I, or free and complexed cardiac troponin T; and

(b) characterizing said subject's risk of having developed or of developing each of ~~said plurality of cardiovascular disorders~~ myocardial infarction, congestive heart failure, and pulmonary embolism based upon the presence or amount of one or more of the markers assayed in step (a), ~~wherein the amount of one or more of the markers assayed in step (a) is not compared to a predetermined threshold amount;~~

wherein when one or more of creatine kinase-MB; myoglobin; or a cardiac troponin form rules out myocardial infarction and D-dimer is assayed above a predetermined threshold amount, said subject is characterized as having developed pulmonary embolism or congestive heart failure, and the assayed amount of BNP or a marker related to BNP is used to distinguish between pulmonary embolism or congestive heart failure in said subject.

2. (Canceled)

3. (Currently amended) A method according to claim 1, further comprising assaying said sample for the presence or amount of one or more ~~wherein said~~ subject-derived marker(s) related to blood pressure regulation, ~~are selected from the group consisting of B-type natriuretic peptide, a marker related to B-type natriuretic peptide, C-type natriuretic factor, urotensin II, arginine vasopressin, aldosterone, angiotensin I, angiotensin II, angiotensin III, bradykinin, calcitonin, procalcitonin, calcitonin gene related peptide, adrenomedullin, calcyphosine, endothelin-2, endothelin-3, rennin, A-type natriuretic peptide, and urodilatin, and wherein said subject-derived~~ marker(s) related to myocardial injury ~~are selected from the group consisting of free cardiac troponin I, free cardiac troponin T, cardiac troponin I in a complex comprising one or both of troponin T and troponin C, cardiac troponin T in a complex comprising one or both of troponin I and troponin C, free and complexed cardiac troponin I, free and complexed cardiac troponin T, creatine kinase MB, myoglobin, glycogen phosphorylase BB, annexin B, β -enolase, heart type fatty acid binding protein, and S-100a.~~

4. (Canceled)

5. (Previously presented) A method according to claim 1, wherein said assaying step (a) further comprises assaying said sample for the presence or amount of one or more subject-derived markers related to inflammation.

6. (Canceled)

7. (Original) A method according to claim 5, wherein said marker(s) related to inflammation are selected from the group consisting of C-reactive protein, an interleukin, interleukin-1 receptor agonist, CD54, CD106, monocyte chemotactic protein-1, caspase-3, lipocalin-type prostaglandin D synthase, mast cell tryptase, eosinophil cationic protein, KL-6,

haptoglobin, tumor necrosis factor α , tumor necrosis factor β , fibronectin, and vascular endothelial growth factor.

8. (Currently amended) A method according to claim 7, wherein said assaying step (a) comprises assaying said sample for the presence or amount of B-type natriuretic peptide or a marker related to B-type natriuretic peptide, D-dimer, ~~and assaying said sample for the presence or amount of~~ creatine kinase-MB, total cardiac troponin I, myoglobin, and C-reactive protein.

9. (Previously presented) A method according to claim 1, wherein said assaying step (a) further comprises assaying said sample for the presence or amount of one or more subject-derived markers related to coagulation and hemostasis.

10. (Canceled)

11. (Currently amended) A method according to claim 9, wherein said subject-derived marker(s) related to coagulation and hemostasis are selected from the group consisting of plasmin, fibrinogen, ~~D-dimer~~, β -thromboglobulin, platelet factor 4, fibrinopeptide A, platelet-derived growth factor, prothrombin fragment 1+2, plasmin- α 2-antiplasmin complex, thrombin-antithrombin III complex, P-selectin, thrombin, von Willebrand factor, tissue factor, and thrombus precursor protein.

12. (Canceled)

13. (Previously presented) A method according to claim 5, wherein said assaying step (a) further comprises assaying said sample for the presence or amount of a subject-derived marker related to coagulation and hemostasis.

14. (Canceled)

15. (Original) A method according to claim 1, wherein said test sample is selected from the group consisting of a blood sample, a serum sample, and a plasma sample.
16. (Canceled)
17. (Currently amended) A method according to claim 1, wherein said characterization step (b) comprises comparing the assayed amount of BNP or a marker related to BNP ~~at least one marker amount~~ to a predetermined threshold level.
- 18-38. (Canceled)
39. (New) A method according to claim 1, wherein said characterization step (b) comprises comparing the assayed amounts of each marker to a predetermined threshold level.
40. (New) A method according to claim 1, wherein the method comprises ruling out the presence of myocardial infarction by determining a level of at least one cardiac troponin form that is below a predetermined threshold amount.
41. (New) A method according to claim 1, wherein a cardiac troponin form is free and complexed cardiac troponin I or free and complexed cardiac troponin T.
42. (New) The method according to claim 1, further comprising assaying said sample for the presence or amount of one or more subject-derived marker(s) related to myocardial injury selected from the group consisting of glycogen phosphorylase-BB, annexin B, β -enolase, heart-type fatty acid binding protein, and S-100ao.

43. (New) The method according to claim 13, wherein said one or more subject-derived markers related to coagulation and hemostasis are selected from the group consisting of plasmin, beta-thromboglobulin, platelet factor 4, fibrinopeptide A, platelet-derived growth factor, prothrombin fragment 1+2, P-selectin, thrombin, von Willebrand factor, tissue factor, and thrombus precursor protein.
44. (New) The method of claim 1, wherein when said subject is characterized as having developed pulmonary embolism or congestive heart failure, the assayed amount of D-dimer and the assayed amount of BNP or a marker related to BNP are both elevated with respect to the amount found in normal subjects, and the assayed amount of BNP or a marker related to BNP is used to distinguish between pulmonary embolism or congestive heart failure in said subject.
45. (New) A method according to claim 1, wherein when one or more of creatine kinase-MB, myoglobin, or a cardiac troponin form is assayed below a predetermined threshold amount and D-dimer is assayed above a predetermined threshold amount, said subject is characterized as having developed or of developing pulmonary embolism when the ratio of the amount of D-dimer to the amount of BNP or a marker related to BNP is above a predetermined threshold value and said subject is characterized as having developed or of developing congestive heart failure when the ratio of the amount of D-dimer to the amount of BNP or a marker related to BNP is below a predetermined threshold value.
46. (New) A method according to claim 1, wherein the method is used to rule in or rule out one or more causes of dyspnea.